

FACILITY PERMIT TO OPERATE QUEMETCO INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: SECONDARY LEAD SMELTING					
System 2: FEED DRYING SYSTEM					
FURNACE, ROTARY, LIQUEFIED PETROLEUM GAS, NATURAL GAS, 6 FT.-5 IN. DIA. X 31 FT. - 0 IN. L., 40-H.P., WITH A NORTH AMERICAN MODEL 42-13-10-LEX BURNER, 10 MMBTU/HR A/N: 533021 Permit to Construct: DRAFT	D3	C28 C29 C35	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; LEAD: (10) [40CFR 63 Subpart X, #02, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.2, B75.1, B163.3, C1.7, C1.8, C1.9, C1.10, C6.4, C303.2, D12.10, D12.11, D12.12, D12.13, D322.2, D323.1, K67.11

- * (1) (1A) (1B) Denotes RECLAIM emission factor
(3) Denotes RECLAIM concentration limit
(5) (5A) (5B) Denotes command and control emission limit
(7) Denotes NSR applicability limit
(9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
(4) Denotes BACT emission limit
(6) Denotes air toxic control rule limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F14.1 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

F16.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Records shall be kept to demonstrate compliance with the following conditions, pursuant to the Rule 1407 Compliance Plan for this facility:

1. This facility shall be operated in accordance with the requirements specified in subparts (d)(1), (d)(3), (d)(5), (e), and (g)(1) of Rule 1407.
2. The slag furnace and reverberatory furnace process air pollution control systems shall be operated pursuant to all requirements stated in this condition, with the exception of the temperature requirement of Rule 1407 (d)(3).

[RULE 1407, 7-8-1994; 40CFR 63 Subpart X, #02, 6-23-2003]

F52.1 This facility is subject to the applicable requirements of the following rules or regulation(s):

Rule 1420.1

- A. The total facility mass lead emissions from all lead point sources shall not exceed 0.045 pounds of lead per hour.
- B. The total facility and maximum emission rates shall be determined using the most recent source tests conducted by the facility or the District.

[RULE 1420.1, 11-5-2010]

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The operator shall comply with the terms and conditions set forth below:

SYSTEM CONDITIONS

S53.1 The following conditions shall apply to the equipment in this system:

The operator shall maintain the level of plastic separation in this system as follows:

For each calendar quarter, the ratio of the total amount of separated plastic shipped offsite in that quarter to the total amount of raw lead metal produced from the reverberatory and lead slag furnaces in that quarter shall be 0.05 or greater.

The daily and daily month-to-date (MTD) total amounts of raw lead metal produced, and plastic shipped offsite, shall be recorded in the COI Plant Activity Report (COI).

The operator shall calculate the plastic to lead metal ratios using the total amounts of plastic and lead produced in the final end of the calendar month COI reports. The plastic to lead metal ratios, for the previous calendar month, and for the previous calendar quarter, shall be reported in both the Daily Production Reports (DPR) and in the COI reports for this facility.

The final end of the calendar month amounts of plastic shall be based on bills of lading and/or other equivalent shipment records or manifests documenting total weight of plastic shipped offsite, and the raw lead metal produced shall be based on the total number and weights of raw lead bullion molds/ingots cast and recorded each work shift each day by the reverberatory/slag furnace operator(s).

[RULE 204, 10-8-1993]

[Systems subject to this condition : Process 1, System 1]

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The operator shall comply with the terms and conditions set forth below:

DEVICE CONDITIONS

B. Material/Fuel Type Limits

B59.2 The operator shall not use the following material(s) in this device :

With the exception of the specific materials listed in condition nos. B163.2 and B163.3, all other types of organic materials including, but not limited to, coal, charcoal, rubber, plastic, paper, rags, oil, grease, or metal contaminated with any of these materials

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D3, D8, D84]

B75.1 The operator shall not use propane in this equipment except under the following circumstance(s):

Natural gas curtailment

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D3, D8]

B163.3 The operator shall only use feed materials containing the following:

aluminum oxide and carbonate

battery crusher material

calcined carbon coke

calcium oxide and carbonate

flue dust generated on-site

inorganic lead compounds

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The operator shall comply with the terms and conditions set forth below:

iron oxide and carbonate

lead dross

lime

limestone

magnesium oxide and carbonate

metallic iron, metallic steel and/or metallic lead

paper from additive bags

reverberatory furnace slag

rubber and plastic that is not removed from battery crusher material processed by

the permitted battery crushing and material separation system

silica and silica sand

slag furnace slag

sodium borate

sodium carbonate

[RULE 1401, 12-7-1990]

[Devices subject to this condition : D3, D8]

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The operator shall comply with the terms and conditions set forth below:

C. Throughput or Operating Parameter Limits

C1.7 The operator shall limit the material processed to no more than 600 ton(s) in any one day.

For the purpose of this condition, material processed shall be defined as the total weight of all materials charged to the reverberatory furnace. This total weight shall be the same as the total weight of all materials charged to the rotary dryer furnace. This condition shall not apply to baghouse dust generated on-site. To comply with this condition, the process weight shall be determined according to the following method.

- 1) The operator shall use a skip loader equipped with a Loadrite weighing system, and the hardware and software system (network) referred to as the Supervisory Control And Data Acquisition System (SCADA), to measure and record the weight of all materials charged to the rotary dryer feed hopper in accordance with all data and specifications submitted to the AQMD under Application No. 442948 unless otherwise specified below.
- 2) Except for calcined carbon coke, all feed material shall be charged to the rotary dryer and the reverberatory furnaces through the feed hopper serving the rotary dryer furnace.
- 3) Calcined carbon coke shall be staged in a dedicated pile prior to charging it to the main rotary dryer feed conveyor. The total amount of all carbon coke charged shall also be weighed and recorded by the Loadrite weighing system.
- 4) The SCADA shall process the information from the Loadrite weighing system and record the skip loader identification, calendar date, chronological time and process weight, in pounds, of each bucket load of material charged to the rotary dryer feed hopper and the total weight of all coke charged, respectively, as well as the total load count for each day.
- 5) A motion detection system, consisting of a photoelectric sensor, a video camera and a video motion detector, shall be installed at the rotary dryer feed hopper, and maintained in proper operation at all times, to indicate when a bucket load is charged to this hopper. The SCADA shall process the information from this system and record the chronological time of each bucket load and the total count of all loads charged to the rotary dryer feed hopper each day.

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The operator shall comply with the terms and conditions set forth below:

- 6) The time stamps of all devices, including the Loadrite systems, shall be synchronized with respect to the time of day, and with each other, within plus or minus 180 seconds.
- 7) The rotary dryer feed hopper photoelectric sensor shall provide an electronic signal to a circular chart recorder which shall record one tick mark for each instance that a bucket load is charged to the hopper, and, simultaneously, to a non-resettable totalizing counter which counts the total number of loads charged. One separate circular data chart shall be produced for each day.
- 8) The photoelectric sensor, circular chart recorder, and totalizing counter shall be electrically configured to be independent of the SCADA network, and maintained in operation at all times.
- 9) The chart recorder, and the totalizing counter, shall be installed in the control room adjacent to the furnace area easily accessible to AQMD personnel. Each circular chart shall be clearly identified with the calendar date(s), starting time, ending time, starting totalizer count, and ending totalizer count that applies to the tick marks recorded on each chart. Each chart shall also be signed by the shift supervisor present on duty at the time that the chart paper is replaced in the recorder.
- 10) A manual verification of each charging event recorded by the SCADA and chart recorder shall be performed every two hours initially until otherwise approved in writing by the AQMD. Quemetco shall record the result of each verification in the comment section of the Daily Production Report (DPR) for this facility. If the number of load counts do not match, an explanation of causes and corrective actions taken (if required) shall be included in the DPR.
- 11) If at any time, the weighing system fails to record the weight of a bucket load charged to the rotary dryer hopper, as evidenced by no weight entry associated with a time stamp or a load count inconsistent with that of the photoelectric sensor system (i.e., a missing data event), a default weight of 15,000 pounds shall be added into the record for each missed weight measurement (i.e. each charging event missing a corresponding measured weight value).

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The operator shall comply with the terms and conditions set forth below:

- 12) For the purpose of this condition, a false positive shall be defined as a missing data event not related to the charging of material into the rotary dryer feed hopper.
- 13) The default weight requirement in subpart 11 of this condition shall not apply for events where the video camera record, in conjunction with the video motion detector, clearly demonstrates that no missing data event occurred (i.e., a false positive event). In cases where the record shows that a missing data event was a false positive, Quemetco shall provide a notation in the daily log identifying the cause for the false positive.
- 14) If the number of missing data events (not counting false positives) exceeds four (4) in any two (2) hour recording period, Quemetco shall cease the charging of all materials to the rotary and reverberatory furnaces until all the factors causing the missing data events have been identified and corrected.
- 15) The number of missing data events (not counting false positives) shall not exceed ten (10) in any one 24 hour period.
- 16) Quemetco shall maintain standardized test weights for calibrating the Loadrite units. Each standardized test weight shall have a mass not less than 6000 pounds, and not more than 7500 pounds. In addition, each standard test weight shall be engraved or stamped with a unique serial number and the weight value in pounds.
- 17) The mass of each test weight shall be verified using a certified truck scale, not less than once per calendar month, and prior to the first use of the test weight. All calibrations of standard test weights shall be accompanied by truck scale weight tickets showing the tare and final weights used to assign the true weight to each standard test weight.
- 18) The truck scale shall have an active certification obtained from a governmental body with jurisdiction over truck scale calibrations, such as the State of California Department of Transportation.
- 19) Quemetco shall perform a calibration of each Loadrite unit in use by measuring the weight of standardized test weights at least daily at the beginning of each operation day. A total of two (2) standard test weights shall be used for each Loadrite calibration (i.e., a total bucket calibration weight of 12,000 to 15,000 lbs).

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The operator shall comply with the terms and conditions set forth below:

- 20) The value measured for the standardized test weight by a Loadrite unit in service shall not deviate from the actual value of the standard test weight by greater than three (3) percent.
- 21) Any standard test weight which becomes damaged, broken, or physically altered in a way which can cause a weight deviation of more than 100 pounds shall be immediately removed from service as a standard until it is recalibrated using the certified truck scale.
- 22) Not later than 30 days after this condition becomes effective, Quemetco shall submit a revised written Standard Operating Procedure (SOP) for the operation of the Loadrite load cell weighing system for AQMD approval. The written SOP shall comply with all requirements stated in this permit condition. Quemetco shall comply with the revised written SOP unless otherwise approved in writing by the AQMD.
- 23) Quemetco shall submit monthly reports documenting each bucket weight charged, each missing data event, and the total tons of material charged for each day of the month as well as all calibration data, and all operational anomalies associated with the furnace operation and/or feed weighing system operations.
- 24) Each report required by subpart 23 of these conditions shall be submitted to the AQMD's Toxics Team not later than the 10th day of the following month, for each month in the first six months following the issue date of this permit, and semiannually thereafter.
- 25) The semiannual report (required by subpart 23 of these conditions) covering January through June, inclusive, shall be submitted not later than August 31 of the same calendar year. The semiannual report covering July through December, inclusive, shall be submitted not later than February 28 of the following calendar year.
- 26) Quemetco shall keep and maintain all records required by this condition, including, but not limited to, serial number of each test weight, mass (in pounds) of each test weight, records of each test weight calibration, records of each test weight recalibration due to damage, recorder charts, Loadrite calibration data, daily production records, and daily read-only electronic records from SCADA (e.g., in the TIFF or PDF universal image formats).

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The operator shall comply with the terms and conditions set forth below:

- 27) All records required by this condition shall be kept onsite for a minimum of five years and made available to District personnel upon request. For those records which are generated in an electronic format, Quemetco shall comply with this condition by maintaining the electronic format of the records.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 12-7-1990]

[Devices subject to this condition : D3, D8]

- C1.8 The operator shall limit the material processed to no more than 600,000 lb(s) in any one month.

For the purpose of this condition, material processed shall be defined as the combined, total amount of calcined carbon coke charged to the rotary dryer and reverberatory furnaces each calendar month.

The operator shall also limit the maximum combined daily amount of calcined carbon coke charged to the rotary dryer and reverberatory furnaces to no more than 32,700 lb(s) in any one day.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D3, D8]

- C1.9 The operator shall limit the natural gas fuel usage to no more than 252000 cubic feet per day.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D3]

- C1.10 The operator shall limit the propane fuel usage to no more than 2750 gallon(s) per day.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

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The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : D3]

- C6.4 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 330 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust duct located at the end of the rotary dryer furnace opposite the burner location. The readout from this device shall be referred to as the "rotary dryer exhaust temperature".

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1401, 12-7-1990]

[Devices subject to this condition : D3]

- C303.2 The operator shall limit oxygen enrichment percent to no more than the amount specified by the following equation: $OE = (OF \times 100) / (OF + AF)$ where:

- OE = oxygen enrichment percent.
- OF = standard cubic feet of gaseous oxygen supplied to a set of burners in any one day.
- AF = standard cubic feet of air supplied to a set of burners in any one day.
- And where the value of OE is limited to the following amounts.
- For the rotary dryer, OE = 6.0 percent maximum.

[RULE 2005, 5-6-2005; RULE 2012, 5-6-2005]

[Devices subject to this condition : D3]

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The operator shall comply with the terms and conditions set forth below:

D. Monitoring/Testing Requirements

D12.10 The operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the fuel usage of the equipment.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D3, D8]

D12.11 The operator shall install and maintain a(n) pressure gauge to accurately indicate the pressure in the oxygen supply line to this equipment, in pounds per square inch.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 5-6-2005]

[Devices subject to this condition : D3, D8]

D12.12 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate in the oxygen gas supply line to this equipment. The flow meter shall totalize the oxygen flow rate and it shall provide the oxygen usage in units of total standard cubic feet.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D3, D8]

D12.13 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate in the combustion air supply line to this equipment. The flow meter shall totalize the combustion air flow rate and it shall provide the air consumption in units of total standard cubic feet.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D3, D8]

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The operator shall comply with the terms and conditions set forth below:

D322.2 The operator shall perform a weekly inspection of the rotary dryer furnace and remove internal build-up of feed material adhering to the internal surface of the rotary dryer furnace.

To comply with this condition, the operator shall ,within 24 hours following the discovery of material build-up, remove material which has fused and/or adhered to the internal surface of the rotary dryer furnace.

To comply with this condition, the operator shall maintain a weekly written or hard copy report of each rotary dryer furnace inspection, including a full description of any maintenance work performed on this furnace. This weekly report shall be signed by the supervisor on duty during the shift when the inspection and/or maintenance activity is completed. This report shall be presented to AQMD personnel upon request.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1401, 12-7-1990]

[Devices subject to this condition : D3]

D323.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a semi-annual basis, at least, unless the equipment did not operate during the entire semi-annual period. The routine semi-annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or

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The operator shall comply with the terms and conditions set forth below:

- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 401, 3-2-1984; RULE 401, 11-9-2001]**

[Devices subject to this condition : D1, D3, D8, C40, D84, C89, S159, C161]

K. Record Keeping/Reporting

K67.11 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The total quantity, in standard cubic feet, of natural gas consumed in the rotary dryer furnace.

The total quantity, in gallons, of propane consumed in the rotary dryer furnace.

The total quantity, in standard cubic feet, of enrichment oxygen supplied to the rotary dryer furnace.

The total quantity, in standard cubic feet, of combustion air, supplied to the rotary dryer furnace.

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The operator shall comply with the terms and conditions set forth below:

The daily average level of oxygen enrichment percent calculated for the rotary dryer furnace.

The rotary dryer exhaust temperature, once per shift, in Deg F

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D3]